Author Index of Volume 223

Adamec, F., 178
Aggarwal, S., 72
Ahmed, E., 129
Ahmed, W., 129
Aleshin, A. N., 51
Ambroz, M., 178
Andritschky, M., 242
Aoyama, K., 358
Arnell, R. D., 87, 98
Atanassov, G., 288

Baba, N., 1
Balk, P., 348
Baránková, H., 218
Bárdoš, L., 218
Berg, S., 218
Blanpain, B., 65
Bokstein, B. S., 51
Borisenko, V. E., 122
Brüstel, U., 311
Brynda, E., 178

Capelletti, R., 114
Carabe, J., 161
Carlsson, J.-O., 218
Celis, J. P., 65
Chand, A., 72
Chang, C. Y., 23
Chang, D. J., 253
Chen, H. C., 56
Chuang, Y. C., 56
Cornish, J. C. L., 167

Danyluk, S., 260
Dapor, M., 146
David, T., 7
Dian, J., 178
Dieker, Chr., 298
Dimitrov, D. B., 293
Dimitrova, T., 293
Dittmar, R. M., 31
Djabella, H., 87, 98
dos Santos, M. P., 242

Ebberink, J., 65
Egorov, V. K., 51
Elena, M., 114
Elfallal, I., 303

Fontaine, C., 143
François, J. C., 223
Fuchs, G., 19
Fujiyoshi, Y., 358

Gan, F., 368
Gan, Z., 11
Gandia, J. J., 161
Gaponenko, N. V., 122
Gengembre, L., 223
Gerberich, W. W., 269
Ghosh, P. K., 72
Gladun, C., 311
Gnaser, H., 122
Goel, A. K., 72
Gore, R. B., 109
Goudonnet, J. P., 7
Gould, R. D., 334
Gravier, P., 223
Greene, J. E., 212
Grimblot, J., 223
Gutierrez, M. T., 161
Guzman, L., 114
Gyetvay, S. R., 253

Hajkova, E., 146
Hala, J., 178
Hallensleben, M. L., 181
Hassan, A. K., 334
Hefter, G. T., 167
Heinrich, A., 311
Hermal, H., 371
Hill, A. E., 303
Hong, Q. Z., 235
Hu, H., 327
Hulse, J. E., 14

Jain, M., 167
Jain, S. C., 348
Jebasinski, R., 298
Jennings, P., 167
Jin, D., 173
Julien, C., 143

Kapsa, V., 178
Karasawa, T., 135
Kim, Y.-W., 212
Kohlstedt, D. L., 269
Krupanidhi, S. B., 327
Kühne, H., 230
Kullberg, M. L., 260
Kumar, S. R., 109
Kurkin, P. V., 51

Laidani, N., 114
Lamb, R. N., 341
Lanagan, M. T., 260
Lee, C. C., 276
Lee, N.-E., 212
Li, J., 11
Li, Y., 11
Lian, G., 11
Liu, Z. Y., 56
Livingstone, J., 167
Lopez-Rios, T., 143
Luo, T., 368

Malina, V., 146
Mantl, S., 298
Mar, L. G., 341
Mariotto, G., 114
Markert, L. C., 212
Massiani, Y., 223
Massouras, G., 19
Masuda, H., 1
Matijasevic, G. S., 276
Matsumoto, M., 358
Mayer, J. W., 235
Meng, L.-J., 242
Menzel, H., 181
Micheli, V., 146
Mileshko, L. P., 122
Miotello, A., 114
Miyata, Y., 135
Mohindra, R. K., 72
Muki, R., 253
Munoz-Yague, A., 143

Navinsek, B., 4
Nishio, K., 1

Ossi, P. M., 114

Palmer, R. A., 31
Pandey, R. K., 109
Panjan, P., 4
Paskaleva, A., 293
Patrykiejew, A., 39
Peng, C. J., 327
Pilkington, R. D., 303
Poeppel, R. B., 260
Popov, D., 288

Robins, J. L., 167
Roger, J. A., 19
Rolfe, S. J., 14
Romana, L., 19
Roos, J. R., 65
Roy, R., 189
Rudajevová, A., 248

Sadhir, R. K., 154
Schoch, Jr., K. F., 154
Schumann, J., 311
Seeboth, A., 140, 371
Sen, S. K., 189
Smeets, J., 65

Talukder, G., 167
Tao, M., 201
Thielsch, R., 288
Timbrell, P. Y., 341
Tomasch, G. A., 212

Uyeda, N., 358

Vacha, M., 178
Vasiliev, V. V., 122
Venkataraman, S. K., 269
Vinzelberg, H., 311
Vook, R. W., 23

Wang, B., 260
Wang, C. Y., 276
Weichart, B., 181
Wheeler, D. R., 78
Wu, W., 260

Xiao, Y., 173
Xiong, G., 11

Yao, Z., 173
Yoon, S. F., 320

Zelinka, J., 146
Zhang, W., 368
Zheng, W. Q., 143

Subject Index of Volume 223

Adhesion
  metal–ceramic interfacial fracture resistance using the continuous microscratch technique, 269
Adsorption
  Monte Carlo studies of adsorption. IV: Phase transitions in localized monolayers on patchwise heterogeneous surfaces, 39
Alloys
  Au–Sn alloy phase diagram and properties related to its use as a bonding medium, 276
  study of diffusion of copper in thin films of silver and Ag–Al alloys as a function of increasing aluminium concentration, 189
Aluminium
  formation and growth of electromigration induced islands in aluminium and in aluminium alloy films, 23
Aluminium oxide
  comparative study of the fretting wear of hard carbon coatings, 65
Amorphous materials
  alternative doping of p-type amorphous silicon films using boron trifluoride, 161
  annealing effects on hydrogen, oxygen and nitrogen bonding in sputtered a-Si network, 167
  nanodisperse CrSi(O, N) thin films—conductivity, thermopower and applications, 311
Anisotropy
  electro-optical behaviour of polymer-dispersed liquid crystals, 140
Annealing
  annealing effects on hydrogen, oxygen and nitrogen bonding in sputtered a-Si network, 167
  effect of heating rate on the crystallization behavior of amorphous PZT thin films, 327
  properties of $CuInSe_2$ films prepared by the rapid thermal annealing technique, 109
Atomic force microscopy
  surface roughness of strained $In_{0.1}Ga_{0.9}As$ films grown on GaAs substrates by molecular beam epitaxy, 320

Carbides
  spectroscopic characterization of thermally treated carbon-rich $Si_{1-x}C_x$ films, 114
Chemical vapour deposition
  epitaxial chemically vapour deposited $Si_{1-x}Ge_x$ thin film growth at very low total pressure, 230
  growth kinetics and reaction mechanism of silicon chemical vapor deposition from silane, 201
Clusters
  formation and growth of electromigration induced islands in aluminium and in aluminium alloy films, 23
Coatings
  damage modes and mechanisms of Si–Ge films under prompt soft X-ray radiation, 253
  degradation of plasma-sprayed alumina and zirconia coatings on stainless steel during thermal cycling and hot corrosion, 56
  preparation and properties of plasma-polymerized thiophene (PPT) conducting films, 154
  relationship between microstructure and residual stress in $YBa_2Cu_3O_{7-x}$, 260
  thermal diffusivity of plasma-sprayed coatings ZrO_2 with 8 wt.% Y_2O_3 and ZrO_2 with 25 wt.% CeO_2, 248
Cobalt
  fabrication of thin buried $CoSi_2$ layers in Si(100) by ion beam synthesis, 298
Computer simulation
  Monte Carlo studies of adsorption. IV: Phase transitions in localized monolayers on patchwise heterogeneous surfaces, 39
Conductivity
  a.c. electrical properties of thermally evaporated thin films of copper phthalocyanine, 334
  novel conducting Langmuir–Blodgett films–charge transfer complex: tetrabenzylthiotetrathiafulvalene–$Zn(dmit)_2$, 173
  preparation and properties of plasma-polymerized thiophene (PPT) conducting films, 154
  thermal diffusivity of plasma-sprayed coatings ZrO_2 with 8 wt.% Y_2O_3 and ZrO_2 with 25 wt.% CeO_2, 248
Contacts
  non-alloyed Ti/Au and Ti/Pt/Au ohmic contacts to p-type InGaAsP, 146
Corrosion
  degradation of plasma-sprayed alumina and zirconia coatings on stainless steel during thermal cycling and hot corrosion, 56
Crystallization
  effect of heating rate on the crystallization behavior of amorphous PZT thin films, 327

Deposition process
  dark-field electron microscopy of Langmuir–Blodgett films of fatty acids and their barium salts, 358
  preparation and properties of plasma-polymerized thiophene (PPT) conducting films, 154
  spectroscopic characterization of thermally treated carbon-rich $Si_{1-x}C_x$ films, 114
Depth profiling
  step-scan FT-IR photothermal spectral depth profiling of polymer films, 31
Diamond
  comparative study of the fretting wear of hard carbon coatings, 65
  reactive deposition of diamond and Si carbide films by hydrogen plasma etching of graphite and Si in the r.f. plasma jet, 218
Dielectric properties
  a.c. electrical properties of thermally evaporated thin films of copper phthalocyanine, 334
  longitudinal and transverse optical modes of (Ca, Sr) F_2 films grown on Si(111), 143
Diffusion
  spin-on silicon dioxide films on indium antimony, 122
  study of diffusion in thin Au-Cu films, 51
  study of diffusion of copper in thin films of silver and Ag–Al alloys as a function of increasing aluminium concentration, 189

Elastic properties
  finite element analysis of contact stresses in elastic double-layer systems under normal load, 98
  finite element analysis of the contact stresses in elastic coating/substrate under normal and tangential load, 87

Electrical properties and measurements
a.c. electrical properties of thermally evaporated thin films of copper phthalocyanine, 334
electro-optical behaviour of polymer-dispersed liquid crystals, 140
growth of homoepitaxial Ge(001)2 × 1 by ultra-high vacuum ion beam sputter deposition, 212
nanodisperse CrSi(O, N) thin films—conductivity, thermopower and applications, 311
non-alloyed Ti/Au and Ti/Pt/Au ohmic contacts to p-type InGaAsP, 146
Electrochemistry
characterization and optical properties of thin films formed on TiN coatings during electrochemical treatments, 223
Electromigration
formation and growth of electromigration induced islands in aluminium and in aluminium alloy films, 23
Electron microscopy
dark-field electron microscopy of Langmuir–Blodgett films of fatty acids and their barium salts, 358
Ellipsometry
characterization of very thin Ge epilayers on (100)Si by spectroscopic ellipsometry, 14
Epitaxy
composition control and growth mechanisms in solid phase epitaxy of Ge–Si in $Ge_xSi_{1-x}/Pd_2Si/Si$ systems, 235
epitaxial chemically vapour deposited $Si_{1-x}Ge_x$ thin film growth at very low total pressure, 230
fabrication of thin buried $CoSi_2$ layers in Si(100) by ion beam synthesis, 298
growth of homoepitaxial Ge(001)2 × 1 by ultra-high vacuum ion beam sputter deposition, 212
Evaporation
optical properties of TiO_2, Y_2O_3 and CeO_2 thin films deposited by electron beam evaporation, 288

Fourier transform infrared spectroscopy
annealing effects on hydrogen, oxygen and nitrogen bonding in sputtered a-Si network, 167
step-scan FT-IR photothermal spectral depth profiling of polymer films, 31

Gallium arsenide
surface roughness of strained $In_{0.1}Ga_{0.9}As$ films grown on GaAs substrates by molecular beam epitaxy, 320
Germanium
characterization of very thin Ge epilayers on (100)Si by spectroscopic ellipsometry, 14
composition control and growth mechanisms in solid phase epitaxy of Ge–Si in $Ge_xSi_{1-x}/Pd_2Si/Si$ systems, 235
epitaxial chemically vapour deposited $Si_{1-x}Ge_x$ thin film growth at very low total pressure, 230
growth of homoepitaxial Ge(001)2 × 1 by ultra-high vacuum ion beam sputter deposition, 212
preparation and properties of the GeSi–oxide system, 348
Glow discharge
alternative doping of p-type amorphous silicon films using boron trifluoride, 161
Gold
Au–Sn alloy phase diagram and properties related to its use as a bonding medium, 276
study of diffusion in thin Au–Cu films, 51
Grain boundary
study of diffusion in thin Au–Cu films, 51

Hardness
effect of high dose N_2^+ ion implantation on surface characteristics of AISI 302 stainless steel with and without an inducing strain, 72
Heat treatment
effect of heating rate on the crystallization behavior of amorphous PZT thin films, 327
Hydrogen plasma etching
reactive deposition of diamond and Si carbide films by hydrogen plasma etching of graphite and Si in the r.f. plasma jet, 218

Indium antimonide
spin-on silicon dioxide films on indium antimony, 122
Indium oxide
electrical and optical properties of indium tin oxide thin films deposited on unheated substrates by d.c. reactive sputtering, 135
formulation of a statistical thermodynamic model for the electron concentration in heavily doped metal oxide semiconductors applied to the tin-doped indium oxide system, 303
Indium phosphide
non-alloyed Ti/Au and Ti/Pt/Au ohmic contacts to p-type InGaAsP, 146
Infrared spectroscopy
longitudinal and transverse optical modes of (Ca, Sr) F_2 films grown on Si(111), 143
novel conducting Langmuir–Blodgett film–charge transfer complex: tetrabenzylthiotetrathiafulvalene–Zn(dmit)$_2$, 173
spectroscopic characterization of thermally treated carbon-rich $Si_{1-x}C_x$ films, 114
Interfaces
metal–ceramic interfacial fracture resistance using the continuous microscratch technique, 269
non-alloyed Ti/Au and Ti/Pt/Au ohmic contacts to p-type InGaAsP, 146
study of diffusion of copper in thin films of silver and Ag–Al alloys as a function of increasing aluminium concentration, 189
Ion implantation
effect of high dose N_2^+ ion implantation on surface characteristics of AISI 302 stainless steel with and without an inducing strain, 72
fabrication of thin buried $CoSi_2$ layers in Si(100) by ion beam synthesis, 298

Langmuir–Blodgett films
dark-field electron microscopy of Langmuir–Blodgett films of fatty acids and their barium salts, 358
excited energy transfer in Langmuir–Blodgett films studied by hole burning spectroscopy, 178
Langmuir–Blodgett films of photochromic polyglutamates 3. Spectroscopic studies on LB films of photochromic polyglutamates with alkylspacers of different length, 181
novel conducting Langmuir–Blodgett film–charge transfer complex: tetrabenzylthiotetrathiafulvalene–Zn(dmit)$_2$, 173
temperature dependence of optical properties and structure of tetranonyl phthalocyanine copper Langmuir–Blodgett films, 368

Metal–oxide semiconductor structures
formulation of a statistical thermodynamic model for the electron concentration in heavily doped metal oxide semiconductors applied to the tin-doped indium oxide system, 303

radiation effects on wet- and dry-oxide metal-oxide-semiconductor devices, 293
Metallization
metal–ceramic interfacial fracture resistance using the continuous microscratch technique, 269
Molecular beam epitaxy
surface roughness of strained $In_{0.1}Ga_{0.9}As$ films grown on GaAs substrates by molecular beam epitaxy, 320
Molybdenum
effect of oxygen pressure from 10^{-9} to 10^{-6} Torr on the friction of sputtered MoS_x films, 78
Monolayers
Monte Carlo studies of adsorption. IV: Phase transitions in localized monolayers on patchwise heterogeneous surfaces, 39
Multilayers
Au–Sn alloy phase diagram and properties related to its use as a bonding medium, 276
morphology of Si–Sn multilayered thin films, 19

Optical coatings
formulation of a statistical thermodynamic model for the electron concentration in heavily doped metal oxide semiconductors applied to the tin-doped indium oxide system, 303
longitudinal and transverse optical modes of (Ca, Sr) F_2 films grown on Si(111), 143
XPS study of zinc oxide thin film growth on copper using zinc acetate as a precursor, 341
Optical properties
characterization and optical properties of thin films formed on TiN coatings during electrochemical treatments, 223
effect of substrate temperature on the properties of d.c. reactive magnetron sputtered titanium oxide films, 242
electro-optical behaviour of polymer-dispersed liquid crystals, 140
Langmuir–Blodgett films of photochromic polyglutamates 3. Spectroscopic studies on LB films of photochromic polyglutamates with alkylspacers of different length, 181
temperature dependence of optical properties and structure of tetranonyl phthalocyanine copper Langmuir–Blodgett films, 368
water-dependent matrix orientation in thin gelatin layers, 371
Optical spectroscopy
excited energy transfer in Langmuir–Blodgett films studied by hole burning spectroscopy, 178
Organic substances
a.c. electrical properties of thermally evaporated thin films of copper phthalocyanine, 334
temperature dependence of optical properties and structure of tetranonyl phthalocyanine copper Langmuir–Blodgett films, 368
Organometallic vapour deposition
XPS study of zinc oxide thin film growth on copper using zinc acetate as a precursor, 341
Oxidation
oxidation of silicon using trichloroethane–O_2 and HCl–O_2 mixtures, 129
Oxides
oxidation of silicon using trichloroethane–O_2 and HCl–O_2 mixtures, 129
preparation and properties of the GeSi–oxide system, 348
Oxygen
effect of oxygen pressure from 10^{-9} to 10^{-6} Torr on the friction of sputtered MoS_x films, 78

Phase transitions
effect of heating rate on the crystallization behavior of amorphous PZT thin films, 327
effect of high dose N_2^+ ion implantation on surface characteristics of AISI 302 stainless steel with and without an inducing strain, 72
Monte Carlo studies of adsorption. IV: Phase transitions in localized monolayers on patchwise heterogeneous surfaces, 39
Physical vapour deposition
longitudinal and transverse optical modes of (Ca, Sr) F_2 films grown on Si(111), 143
Plasma processing and deposition
degradation of plasma-sprayed alumina and zirconia coatings on stainless steel during thermal cycling and hot corrosion, 56
Polymers
electro-optical behaviour of polymer-dispersed liquid crystals, 140
Langmuir–Blodgett films of photochromic polyglutamates 3. Spectroscopic studies on LB films of photochromic polyglutamates with alkylspacers of different length, 181
preparation and properties of plasma-polymerized thiophene (PPT) conducting films, 154
step-scan FT-IR photothermal spectral depth profiling of polymer films, 31
water-dependent matrix orientation in thin gelatin layers, 371

Radiation damage
damage modes and mechanisms of Si–Ge films under prompt soft X-ray radiation, 253
dark-field electron microscopy of Langmuir–Blodgett films of fatty acids and their barium salts, 358
radiation effects on wet- and dry-oxide metal–oxide–semiconductor devices, 293
Raman scattering
spectroscopic characterization of thermally treated carbon-rich $Si_{1-x}C_x$ films, 114
Resistivity
nanodisperse CrSi(O, N) thin films—conductivity, thermopower and applications, 311
Rutherford backscattering spectroscopy
study of diffusion in thin Au–Cu films, 51

Scanning electron microscopy
properties of $CuInSe_2$ films prepared by the rapid thermal annealing technique, 109
Secondary ion mass spectrometry
spin-on silicon dioxide films on indium antimony, 122
Semiconductors
formulation of a statistical thermodynamic model for the electron concentration in heavily doped metal oxide semiconductors applied to the tin-doped indium oxide system, 303
novel conducting Langmuir–Blodgett film–charge transfer complex: tetrabenzylthiotetrathiafulvalene–$Zn(dmit)_2$, 173
properties of $CuInSe_2$ films prepared by the rapid thermal annealing technique, 109
Silicides
fabrication of thin buried $CoSi_2$ layers in Si(100) by ion beam synthesis, 298
Silicon
alternative doping of p-type amorphous silicon films using boron trifluoride, 161
annealing effects on hydrogen, oxygen and nitrogen bonding in sputtered a-Si network, 167

characterization of very thin Ge epilayers on (100)Si by spectroscopic ellipsometry, 14
composition control and growth mechanisms in solid phase epitaxy of Ge–Si in $Ge_xSi_{1-x}/Pd_2Si/Si$ systems, 235
epitaxial chemically vapour deposited $Si_{1-x}Ge_x$ thin film growth at very low total pressure, 230
growth kinetics and reaction mechanism of silicon chemical vapor deposition from silane, 201
morphology of Si–Sn multilayered thin films, 19
nanodisperse CrSi(O, N) thin films—conductivity, thermopower and applications, 311
oxidation of silicon using trichloroethane–O_2 and HCl–O_2 mixtures, 129
preparation and properties of the GeSi–oxide system, 348

Silicon carbide
reactive deposition of diamond and Si carbide films by hydrogen plasma etching of graphite and Si in the r.f. plasma jet, 218

Silicon oxide
oxidation of silicon using trichloroethane–O_2 and HCl–O_2 mixtures, 129
spin-on silicon dioxide films on indium antimony, 122

Solar cells
alternative doping of p-type amorphous silicon films using boron trifluoride, 161

Sputtering
electrical and optical properties of indium tin oxide thin films deposited on unheated substrates by d.c. reactive sputtering, 135
growth of homoepitaxial Ge(001)2 × 1 by ultra-high vacuum ion beam sputter deposition, 212
nanodisperse CrSi(O, N) thin films—conductivity, thermopower and applications, 311
effect of substrate temperature on the properties of d.c. reactive magnetron sputtered titanium oxide films, 242

Steel
degradation of plasma-sprayed alumina and zirconia coatings on stainless steel during thermal cycling and hot corrosion, 56

Stress
damage modes and mechanisms of Si–Ge films under prompt soft X-ray radiation, 253
finite element analysis of contact stresses in elastic double-layer systems under normal load, 98
finite element analysis of the contact stresses in elastic coating/substrate under normal and tangential load, 87

Structural properties
Langmuir–Blodgett films of photochromic polyglutamates 3. Spectroscopic studies on LB films of photochromic polyglutamates with alkylspacers of different length, 181
temperature dependence of optical properties and structure of tetranonyl phthalocyanine copper Langmuir–Blodgett films, 368
water-dependent matrix orientation in thin gelatin layers, 371

Sulphides
effect of oxygen pressure from 10^{-9} to 10^{-6} Torr on the friction of sputtered MoS_x films, 78

Superconductivity
relationship between microstructure and residual stress in $YBa_2Cu_3O_{7-x}$, 260

Superlattices
characterization of very thin Ge epilayers on (100)Si by spectroscopic ellipsometry, 14

Surface and interface states
radiation effects on wet- and dry-oxide metal–oxide–semiconductor devices, 293

Surface composition
spin-on silicon dioxide films on indium antimony, 122
step-scan FT-IR photothermal spectral depth profiling of polymer films, 31

Surface defects
preparation and properties of the GeSi–oxide system, 348

Surface morphology
morphology of Si–Sn multilayered thin films, 19

Surface roughness
surface roughness of strained $In_{0.1}Ga_{0.9}As$ films grown on GaAs substrates by molecular beam epitaxy, 320

Surface stress
relationship between microstructure and residual stress in $YBa_2Cu_3O_{7-x}$, 260

Tin
Au–Sn alloy phase diagram and properties related to its use as a bonding medium, 276
morphology of Si–Sn multilayered thin films, 19

Tin oxide
electrical and optical properties of indium tin oxide thin films deposited on unheated substrates by d.c. reactive sputtering, 135

Titanium nitride
comparative study of the fretting wear of hard carbon coatings, 65
characterization and optical properties of thin films formed on TiN coatings during electrochemical treatments, 223

Titanium oxide
characterization and optical properties of thin films formed on TiN coatings during electrochemical treatments, 223
optical properties of TiO_2, Y_2O_3 and CeO_2 thin films deposited by electron beam evaporation, 288
effect of substrate temperature on the properties of d.c. reactive magnetron sputtered titanium oxide films, 242

Transmission electron microscopy
formation and growth of electromigration induced islands in aluminium and in aluminium alloy films, 23

Tribology
comparative study of the fretting wear of hard carbon coatings, 65
effect of oxygen pressure from 10^{-9} to 10^{-6} Torr on the friction of sputtered MoS_x films, 78

Water
water-dependent matrix orientation in thin gelatin layers, 371

X-ray absorption
damage modes and mechanisms of Si–Ge films under prompt soft X-ray radiation, 253

X-ray diffraction
effect of high dose N_2^+ ion implantation on surface characteristics of AISI 302 stainless steel with and without an inducing strain, 72
effect of substrate temperature on the properties of d.c. reactive magnetron sputtered titanium oxide films, 242
properties of $CuInSe_2$ films prepared by the rapid thermal annealing technique, 109

X-ray photoelectron spectroscopy
XPS study of zinc oxide thin film growth on copper using zinc acetate as a precursor, 341

Zinc oxide
XPS study of zinc oxide thin film growth on copper using zinc acetate as a precursor, 341

Zirconium
thermal diffusivity of plasma-sprayed coatings ZrO_2 with 8 wt.% Y_2O_3 and ZrO_2 with 25 wt.% CeO_2, 248